SUMMARY OF POTENTIAL MODEL RUNS

Revised July 28, 2003

Priority	Scenario	Description	Models to be used		Expected Completion Date for Model Runs	Resource Actions addressed by Scenario
		Benchmark Scenario: This scenario uses the current or future level-of-development hydrology as well as the current regulatory framework (which includes the existing biological opinions for steelhead and spring-run chinook salmon). This scenario is the basis for comparing all other operational scenarios.	CALSIM II HYDROPS WQRRS		30-Jun-03 31-Aug-03 31-Aug-03	
	1	**Eliminate pump-back operations:** This scenario is the same as the Benchmark scenario except pump-back operations are eliminated to test estimate the effects that of pump-back would have on water temperatures in Thermalito Afterbay and the Feather River.	HYDROPS WQRRS			EWG-35, EWG-83, EWG-87
	2	**Eliminate pump-back and peaking operations:** In addition to eliminating pump-back operation, this scenario also "flattens" the generation pattern – no peaking of the generation – May through September to test effects that peaking would have on water temperatures in Thermalito Afterbay and the Feather	HYDROPS WQRRS			EWG-35, EWG-83, EWG-87
	3	**Minimize TAB water surface fluctuations during bass and waterfowl nesting periods:** This scenario is the same as the Benchmark scenario except water surface fluctuations in the TAB are minimized from March through June. Two specific model runs would be analyzed; one with no fluctuation and the other with minor fluctuation in water surface.	HYDROPS			EWG-28
	4	**Maximize TAB water surface fluctuations during bass and waterfowl nesting periods:** This scenario is the same as the Benchmark scenario except water surface in the TAB is required to fluctuate each day for the period March through June. Two specific model runs would be analyzed.	HYDROPS			EWG-28

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	5	**Eliminate the Fish Hatchery temperature requirement as a control for Oroville Facility operations:** This scenario assumes the Fish Hatchery is fed from another water source; thus, it does not impact decisions on facility and river temperatures. Although this scenario uses the Benchmark scenario, it may be necessary to re-run CALSIM II to investigate potential water supply effects.	HYDROPS WQRRS CALSIM II			EWG-35, EWG-36, EWG-37, EWG-38, EWG-83, EWG-87
	6	**Increase minimum release to low flow section:** This scenario is the same as the Benchmark Scenario except the release to the low flow section of the Feather River will be increased (value to be determined from fisheries studies) during the key spawning and rearing period (June through December).	HYDROPS WQRRS			EWG-3, EWG-88
	7	**Gradual flow increase for spawning:** This scenario is the same as the Benchmark Scenario except the release to the low flow section of the Feather River will be "ramped up" during the key spawning period in the fall. Once the flow is ramped to the desired level, it will be maintained until the larval fish emerge from the gravel. This scenario would be based upon the Benchmark scenario, but may require re-run of CALSIM II if ramped low-flow section releases exceed the total release prescribed in the CALSIM II Benchmark.	HYDROPS WQRRS CALSIM II			EWG-15A, EWG-15B
	8	**Eliminate releases from the TAB to the Feather River during chinook spawning period:** Releases from the TAB would be curtailed from September through December; water would be released at the Diversion Dam.	HYDROPS WQRRS			EWG-35, EWG-36, EWG-37, EWG-38, EWG-83, EWG-87

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	9	**Impose a 60°F water temperature requirement at Robinson Riffle:** This scenario would attempt to meet the water supply needs prescribed from the CALSIM II benchmark scenario and would adjust Oroville Facilities operations to achieve the temperature objective from June through September. CALSIM II would be re-run as needed to investigate potential water supply effects.	WQRRS HYDROPS CALSIM II			EWG-36, EWG-37, EWG-38
	10	**Impose a 60°F water temperature requirement at the end of the low-flow section:** This scenario is similar to #9, but meets the temperature objective further downstream. As with Scenario #9, it would attempt to meet the water supply needs prescribed from the CALSIM II benchmark scenario and would adjust Oroville Facilities operations to achieve the temperature objective from June through September. CALSIM II	WQRRS HYDROPS CALSIM II			EWG-36, EWG-37, EWG-38
	11	**Impose a 65°F water temperature requirement at the end of the low-flow section:** This scenario is similar to #10, but meets the temperature objective further downstream. As with Scenario #10, it would attempt to meet the water supply needs prescribed from the CALSIM II benchmark scenario and would adjust Oroville Facilities operations to achieve the temperature objective from June through September. CALSIM II	WQRRS HYDROPS CALSIM II			EWG-36, EWG-37, EWG-38
	12	**Impose a 9 foot per month drawdown requirement on Lake Oroville:** Reservoir level would be allowed to drop 9 feet per month from March through June. This would require a new CALSIM II simulation.	CALSIM II HYDROPS WQRRS			EWG-30
	13	**WATER SUPPLY IMPACT ON LAKE OROVILLE WATER LEVELS:** This set of scenarios is to evaluate how sensitive Oroville lake levels are to varying levels of SWP demands.	CALSIM II			None

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	14	**Route Flood Flows through the Reservoir:** The approach would be to perform reservoir routing analysis for additional flood reservation conditions. Specifically, 50, 100, and 150 TAF of additional flood reservation space would be evaluated. Operations models would be used to investigate impacts to other resource areas.	HEC 5 CALSIM II HYDROPS			None
	15	**Construct channel to carry water around TAB:** Same as the Benchmark Scenario but this scenario includes a channel that leads from the Thermalito Power Plant to the afterbay near the Feather River outlet. This would allow water to reside longer in the afterbay before being diverted by Western or Sutter Mutual.	WQRRS			None
	16	**Increase water temperature in the TAB:** During the May and June period, only enough water would be released into the TAB to meet demands from the afterbay. Water would be released to the river at the Diversion Dam.	HYDROPS WQRRS			EWG-87
	17	**Investigate the extent of temperature control from the Oroville Facilities:** This is a sensitivity analysis (see SP-E6) of how far downstream from the Oroville Facilities that water temperature can be controlled.	WQRRS			EWG-83
		Increase water temperature in the TAB: During the May and June period, only enough water would be released into the TAB to meet demands from the afterbay. Water would be released to the river at the Diversion Dam.	HYDROPS WQRRS			EWG-87
		Investigate the extent of temperature control from the Oroville Facilities: This is a sensitivity analysis (see SP-E6) of how far downstream from the Oroville Facilities that water temperature can be controlled.	WQRRS			EWG-83